

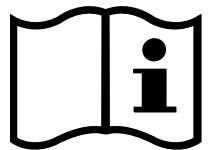


TOSHIBA

CV50*
DIGITAL
Series

IN NEED OF HELP

For television
operation queries,
please ring the
helpline...



REGZA

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Safety Precautions

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken to obtain the best results and for safety to be assured. Please read the points below for your own safety. They are of a general nature, intended to help with all electronic consumer products and some points may not apply to the goods you have just purchased.

Air Circulation

Leave more than 10cm clearance around the television to allow adequate ventilation. This will prevent overheating and possible damage to the television. Dusty places should also be avoided.

Heat Damage

Damage may occur if the television is left in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity. Place in a location where the temperature remains between 5°C (41°F) min. and 35°C (94°F) max.

Mains Supply

The mains supply required for this equipment is 220-240v AC 50/60Hz. Never connect to a DC supply or any other power source. DO ensure that the television is not standing on the mains lead.

DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance. In the UK, the fuse fitted in this plug is approved by ASTA or BSI to BS1362. It should only be replaced by a correctly rated and approved type and the fuse cover must be refitted.

IF IN DOUBT PLEASE CONSULT A COMPETENT ELECTRICIAN.

Do

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and inter-connections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions. Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

DO NOT REMOVE ANY FIXED COVERS AS THIS WILL EXPOSE DANGEROUS AND 'LIVE' PARTS.

THE MAINS PLUG IS USED AS A DISCONNECTING DEVICE AND THEREFORE SHOULD BE READILY OPERABLE.

Do not

DO NOT obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.

DO NOT allow electrical equipment to be exposed to dripping or splashing or objects filled with liquids, such as vases, to be placed on the equipment.

DO NOT place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.

DO NOT use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturers' approved stand, bracket or legs with the fixings provided according to the instructions.

DO NOT leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off by withdrawing the plug, make sure your family know how to do this. Special arrangements may need to be made for people with disabilities.

DO NOT continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

WARNING – excessive sound pressure from earphones or headphones can cause hearing loss.

ABOVE ALL – NEVER let anyone, especially children, push or hit the screen, push anything into holes, slots or any other openings in the case.

NEVER guess or take chances with electrical equipment of any kind – it is better to be safe than sorry.

Installation and important information

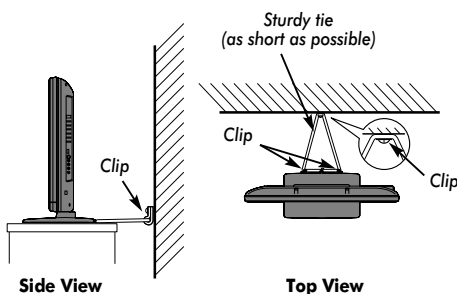
Where to install

Locate the television away from direct sunlight and strong lights, soft, indirect lighting is recommended for comfortable viewing. Use curtains or blinds to prevent direct sunlight falling on the screen.

Place on a sturdy platform, the mounting surface should be flat and steady. It should be secured to the wall with a sturdy tie using the clip on the back of the stand, or secured to the platform using the fixing strap located underneath the table top stand, this will prevent it from falling over.

The LCD display panels are manufactured using an extremely high level of precision technology, however sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

Make sure the television is located in a position where it cannot be pushed or hit by objects, as pressure will break or damage the screen, and that small items cannot be inserted into slots or openings in the case.



Please take note

EXCLUSION CLAUSE

Toshiba shall under no circumstances be liable for loss and/or damage to the product caused by:

- i) fire;
- ii) earthquake;
- iii) accidental damage;
- iv) intentional misuse of the product;
- v) use of the product in improper conditions;
- vi) loss and/or damage caused to the product whilst in the possession of a third party;
- vii) any damage or loss caused as a result of the owner's failure and/or neglect to follow the instructions set out in the owner's manual;
- viii) any loss or damage caused directly as a result of misuse or malfunction of the product when used simultaneously with associated equipment;

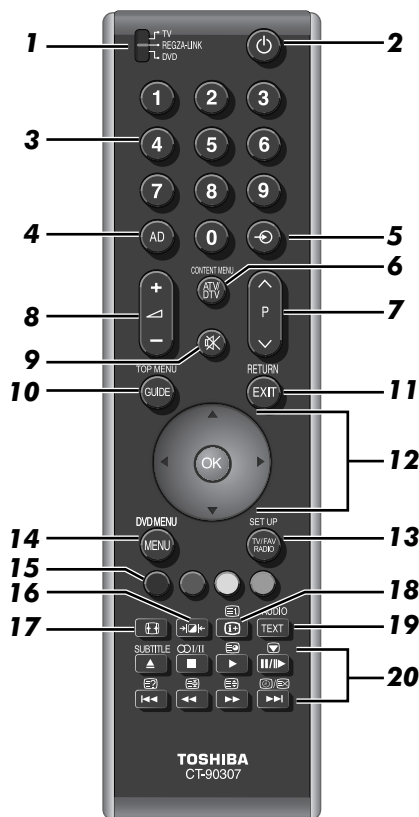
Furthermore, under no circumstances shall Toshiba be liable for any consequential loss and/or damage including but not limited to the following, loss of profit, interruption of business, the loss of recorded data whether caused during normal operation or misuse of the product.

NOTE: A Toshiba wall bracket or stand, where available, must be used. If a non Toshiba wall bracket or stand is used the product's BEAB approval will become void and the equipment is then used at the consumers own risk.

- The digital reception function of this television is only effective in the countries listed in the "COUNTRY SET UP" section of the "DIGITAL MENU". Depending on country/area, some of this television's functions may not be available. Reception of future additional or modified services can not be guaranteed with this television.
- If stationary images generated by 4:3 broadcasts, text services, channel identification logos, computer displays, video games, on screen menus, etc. are left on the television screen for any length of time they could become conspicuous, it is always advisable to reduce both the brightness and contrast settings.
- Very long, continuous use of the 4:3 picture on a 16:9 screen may result in some retention of the image at the 4:3 outlines, this is not a defect of the LCD TV and is not covered under the manufacturers warranty. Regular use of other size modes (eg: Superlive) and varying the "side panel" brightness (if available on the model) will prevent permanent retention.

The remote control

Simple at-a-glance reference of your remote control.



- 1 To select device mode (T/R/D)*
- 2 For On/Standby mode (T/R/D)
- 3 Number buttons (T/R/D)
- 4 To select Audio Description mode on/off (T)
- 5 To select external input sources (T)
To select line input (R/D)
- 6 To switch between ATV (analogue television) and DTV (digital television) (T)
To display Contents menu (R)
- 7 To change programme positions (T/R)
To change text pages (T)

- 8 To alter the TV volume (T/R/D)
- 9 To mute the TV sound (T/R/D)
- 10 To display the **digital** on-screen Programme Guide (T)
To access Top Menu (R/D)
- 11 To exit Menus (T)
To return to previous Menu (R/D)
- 12 When using menus the arrows move the cursor on the screen up, down, left or right. **OK** to confirm your selection (T/R/D)
- 13 To switch between TV, Radio and Favourite programmes when in **digital** mode
To access Setup menu (R/D)
- 14 On-screen Menus (T)
DVD Menus (R/D)
- 15 Text and interactive service control buttons (T)
To work interactive service control on device (R)
- 16 Selectable picture preferences (T)
- 17 Widescreen viewing (T)
- 18 To display on-screen information (T/R/D)
To access index page in Text mode (T)
- 19 To call up text services in **analogue** mode and interactive services in **digital** mode (T)

20 When in TV mode:

- Analogue time display
- Picture still
- Stereo/bilingual transmissions
- Digital Subtitles or Analogue TEXT Subtitle pages if available

When in Text mode:

- To access Sub pages
- To reveal concealed text
- To hold a wanted page
- To enlarge text display size
- To select a page whilst viewing a normal picture

When using the Programme Guide:

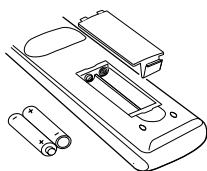
- 24 hours
- + 24 hours
- 1 page
- + 1 page

REGZA-LINK or DVD mode:

- press to PAUSE/STEP
- press to PLAY
- press to REWIND
- press to FAST FORWARD
- press to EJECT
- press to STOP
- press to SKIP-REWIND
- press to SKIP-FORWARD

* T=TV mode, R=REGZA-LINK mode, D=DVD mode

Inserting batteries and effective range of the remote



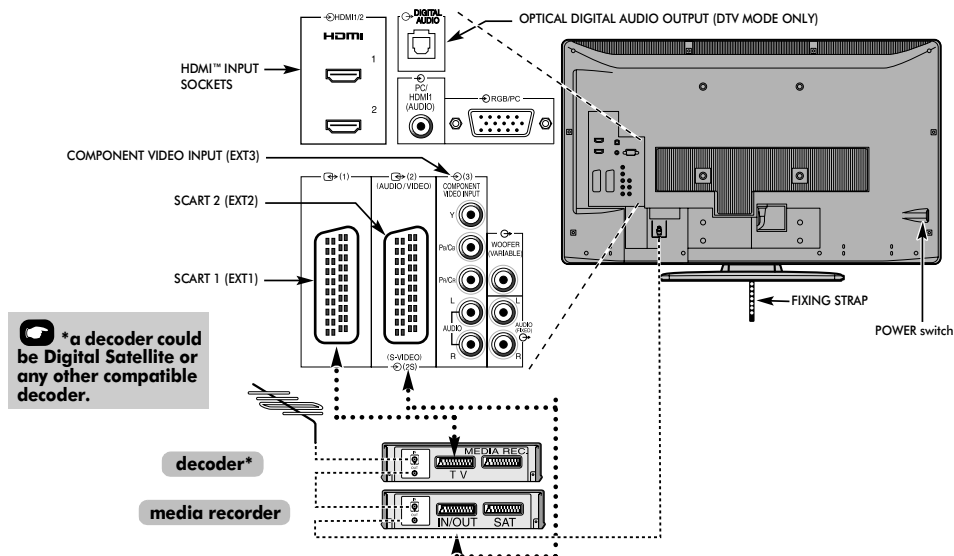
Remove the back cover to reveal the battery compartment and make sure the batteries are inserted the right way round. Suitable battery types for this remote are AAA, IEC R03 1.5V.

Do not combine a used, old battery with a new one or mix battery types. Remove dead batteries immediately to prevent acid from leaking into the battery compartment. Dispose of them in a designated disposal area. **Warning:** batteries must not be exposed to excessive heat such as sunshine, fire or the like.

The performance of the remote control will deteriorate beyond a distance of five metres or outside an angle of 30 degrees from the centre of the television. If the operating range becomes reduced the batteries may need replacing.

Connecting external equipment

Before connecting any external equipment, turn off all main power switches. If there is no switch remove the mains plug from the wall socket.



Aerial cables: -----

Connect the aerial to the socket on the rear of the television. If you use a decoder* and/or a media recorder it is essential that the aerial cable is connected through the decoder and/or through the media recorder to the television.

SCART leads:

Connect the video recorder **IN/OUT** socket to the television. Connect the decoder **TV** socket to the television. Connect the media recorder **SAT** socket to the decoder **MEDIA REC.** socket.

Before running **Auto tuning** put your decoder and media recorder to **Standby**.

The phono sockets alongside the COMPONENT VIDEO INPUT sockets will accept L and R audio signals.

The Digital Audio Output socket enables the connection of a suitable surround sound system. **NOTE: this output is always active.**

HDMI™ (High-Definition Multimedia Interface) is for use with a DVD, decoder or electrical equipment with digital audio and video output. It is designed for best performance with 1080i and 1080p high-definition video signals but will also accept and display VGA, 480i, 480p, 576i, 576p and 720p signals.

NOTE: Although this television is able to connect to HDMI equipment it is possible that some equipment may not operate correctly.

A wide variety of external equipment can be connected to the back of the television, therefore the relevant owners manuals for all additional equipment must be referred to.

We recommend SCART 1 for a decoder and SCART 2 for a media recorder.

If connecting S-VIDEO equipment, set the **INPUT** for **EXT2**. See page 35.

If the television automatically switches over to monitor external equipment, return to normal television by pressing the desired programme position button. To recall external equipment, press **↺** to select between **DTV**, **EXT1**, **EXT2**, **EXT3**, **HDMI1**, **HDMI2**, **HDMI3**, **PC** or **ATV**.

Connecting an HDMI™ or DVI device to the HDMI input

The HDMI input on your television receives digital audio and uncompressed digital video from an HDMI source device, or uncompressed digital video from a DVI (Digital Visual Interface) source device.

This input is designed to accept HDCP (High-Bandwidth Digital-Content Protection) program material in digital form from EIA/CEA-861-D-compliant^[1] consumer electronic devices (such as a set-top box or DVD player with HDMI or DVI output). For acceptable video signal formats, see page 47.

NOTE:

- Some early HDMI equipment may not work properly with your latest HDMI TV, due to the adoption of a new standard. Please unplug your HDMI cable first and then try setting the **Lip Sync** to "Off". Your early HDMI source should operate properly with your television. See page 36.
- Supported Audio format: Linear PCM, sampling rate 32/44.1/48kHz.

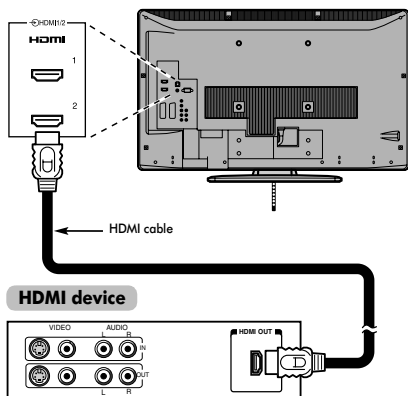
To connect an HDMI device

Connect an HDMI cable (type A connector) to the HDMI terminal.

For proper operation, it is recommended that you use an HDMI cable with the HDMI Logo (**HDMI**).

- If your HDMI connection is capable of 1080p and/or your television is capable of refresh rates greater than 60Hz, you will need a Category 2 cable. Conventional HDMI/DVI cable may not work properly with this mode.
- HDMI cable transfers both video and audio. Separate analog audio cables are not required (see illustration).
- See "HDMI1 audio" on page 36.

The HDMI3 terminal is located at the side of the television.

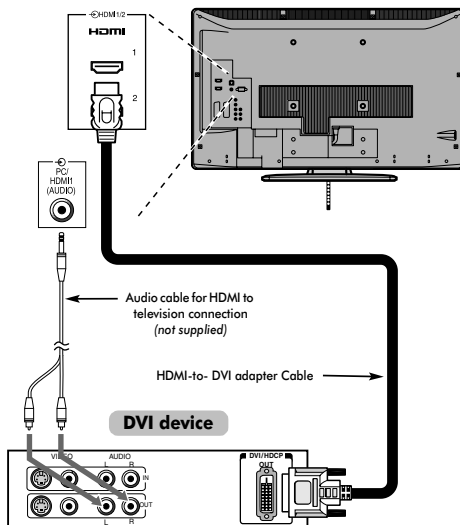


To view the HDMI device video, press the to select HDMI1, HDMI2 or HDMI3 mode.

To connect a DVI device

Connect an HDMI-to-DVI adapter cable (HDMI type A connector) to HDMI1 terminal and audio cables to the PC/HDMI1 (AUDIO) socket (see illustration).

- The recommended HDMI-to-DVI adapter cable length is 6.6 ft (2m).
- An HDMI-to-DVI adapter cable transfers video only. Separate analog audio cables are required.
- See "HDMI1 audio" on page 36.



NOTE:

To ensure that the HDMI or DVI device is reset properly, it is recommended that you follow these procedures:

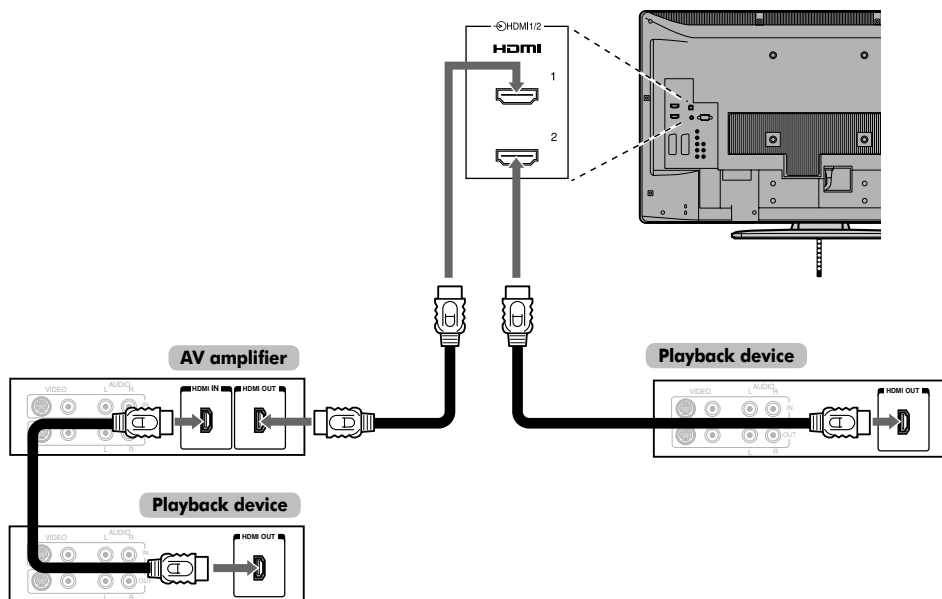
- When turning on your electronic components, turn on the television first, and then the HDMI or DVI device.
- When turning off your electronic components, turn off the HDMI or DVI device first, and then the television.

^[1] EIA/CEA-861-D compliance covers the transmission of uncompressed digital video with high-bandwidth digital content protection, which is being standardized for reception of high-definition video signals. Because this is an evolving technology, it is possible that some devices may not operate properly with the television.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

REGZA-LINK connection

You can control the basic functions of connected audio/video devices using the television's remote control if you connect a REGZA-LINK compatible AV amplifier or playback device. For an explanation of setup and operations, see pages 37–38.



For the setup shown above, you will need three HDMI cables (see page 9).

NOTE:

- If several devices are connected, the REGZA-LINK feature may not operate properly.
- For proper operation, it is recommended that you use HDMI cables with the HDMI Logo (**HDMI**).
- The HDMI3 terminal is located at the side of the television.

Before controlling the device(s):

- After completing the above connections, set the REGZA-LINK menu as you desire (see page 37).
- The connected devices must also be set. For details, see the operation manual for each device.
- The REGZA-LINK feature uses CEC technology as regulated by the HDMI standard.
- This feature is limited to models incorporating Toshiba's REGZA-LINK. However, Toshiba is not liable for those operations. Refer to individual instruction manuals for compatibility information.

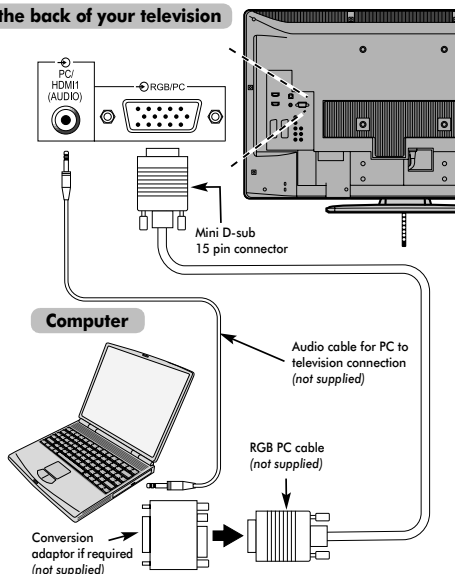
Connecting a computer

With either the RGB/PC or HDMI connection, you can watch your computer's display on the television and hear the sound from the television's speakers.

To connect a PC to the RGB/PC terminal

When connecting a PC to the RGB/PC terminal on the television, use an analog RGB (15-pin) computer cable and PC audio cable to the PC/HDMI1 (AUDIO) socket. Select **PC** from the **PC/HDMI1** audio options in the **AV connection** menu located in the **SET UP** menu.

the back of your television



To use a PC, set the monitor output resolution on the PC before connecting it to the television. For acceptable video signal formats, see page 46.

To display the optimum picture, use the PC setting feature (see page 34).

NOTE:

- The PC audio input terminals on the television are shared with the HDMI1 analog audio input terminals (see page 36).
- Some PC models cannot be connected to this television.
- An adapter is not needed for computers with a compatible mini D-sub15-pin terminal.
- Depending on the DVD's title and the specifications of the PC on which you are playing the DVD-Video, some scenes may be skipped or you may not be able to pause during multi-angle scenes.
- A band may appear at the edges of the screen or parts of the picture may be obscured. This is due to scaling of the picture by the set, it is not a malfunction.

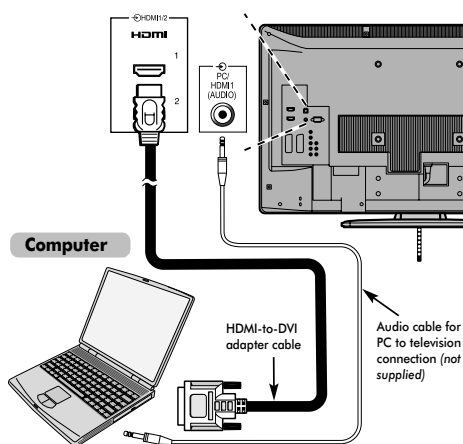
- When PC input mode is selected some of the television's features will be unavailable e.g. **Manual setting** in the **SET UP** menu, **Colour**, **Tint**, **DNR** and **Black/White Level** in the **Picture settings** menu.
- If connecting a certain PC model that signal is particular, the PC signal may not be detected correctly.

To connect a PC to the HDMI terminal

When connecting a PC to the HDMI terminal on the television, use an HDMI-to-DVI adapter cable and analog audio cables.

If connecting a PC with an HDMI terminal, use an HDMI cable (type A connector). Separate analog cables are not necessary (see page 9).

the back of your television



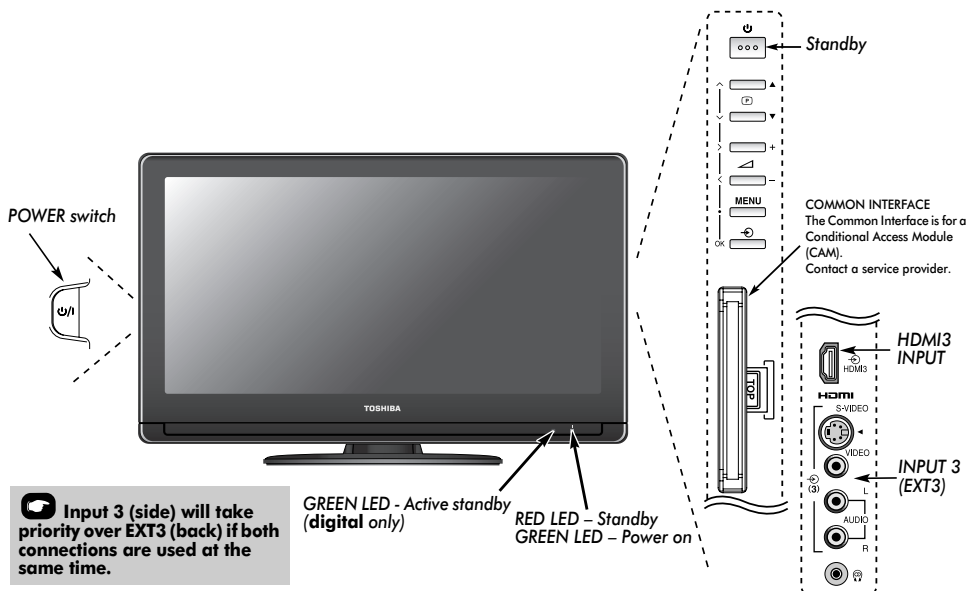
For acceptable PC and video signal formats, see page 47.

NOTE:

- The edges of the images may be hidden.
- If connecting a certain PC model that signal is particular, the PC signal may not be detected correctly.

Controls and input connections

A wide variety of external equipment can be connected to the input sockets on the side of the television. Whilst all the necessary adjustments and controls for the television are made using the remote control, the buttons on the television may be used for some functions.



Switching on

If the RED LED is unlit check that the mains plug is connected to the power supply and press the (POWER) button on the left side of the television to switch the television on. If the picture does not appear press on the remote control, it may take a few moments.

To put the television into Standby press on the remote control, the GREEN active standby LED will appear (see 'Software Upgrade' section) next to the RED for a few moments then disappear. To view the television press again. The picture may take a few seconds to appear.

Using the remote control

Press on the remote control to see the menus.

In **digital** mode the menu bar at the top of the screens will show three different topics shown in symbols. As each symbol is selected by pressing the or button on the remote control, its respective options will appear below.

In **analogue** mode the menu appears as a list of six topics. As each symbol is selected by pressing or on the navigation ring on the remote control, its respective options will appear below.

To use the options, press and on the remote control to move up and down through them and , or to select the required choice. Follow the on-screen instructions. The functions of each menu are described in detail throughout the manual.

Using the controls and connections

To alter the volume press - +.

To alter the programme position press .

Press **MENU** and , or to control the sound and picture options.

Press **MENU** twice to finish.

An S-video cable provides better picture performance than a composite video cable. If you connect an S-video cable to **EXT3**, be sure to disconnect the standard (composite) video cable or the picture performance will be unacceptable.

To select the external input, press until the appropriate input source is selected as described on page 35.


Please always refer to the owner's manual of the equipment to be connected for full details.

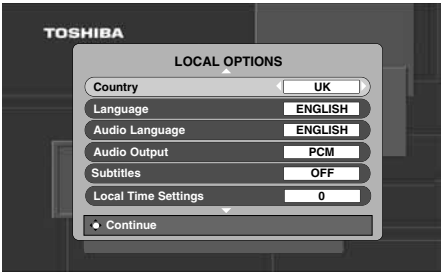
Tuning Digital television








Before switching on the television put your decoder and media recorder to **Standby** if they are connected.

To set up the television use the buttons on the remote control as detailed on page 6.

Tuning for the first time

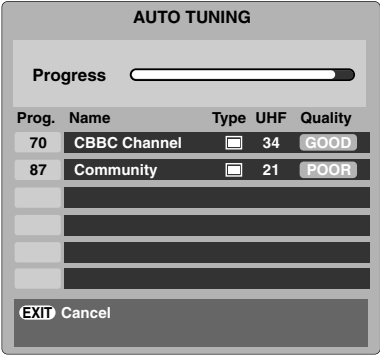
- 1 Press the  button, the **LOCAL OPTIONS** screen will appear. This screen will appear the first time that the television is switched on and each time the television is reset.



- 2 Press  to highlight **Country** and  or  to select. The television will now tune the stations for your country.
- 3 Using  highlight **Language**, then  or  to select.
- 4 Press  to start tuning.

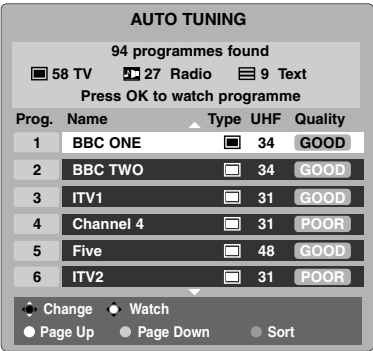
The **AUTO TUNING** screen will appear and the television will start to search for available stations. The progress bar will move along the line.




You must allow the television to complete the search.



When the search is complete the television will automatically select programme one.

The **AUTO TUNING** screen will display the total number of services found.



- 5 Use  or  to move through the list to select a programme then press  to view.

NOTE: The time will be set automatically by transmission but can be advanced or decreased by up to 3 hours using **Local Time Settings**.

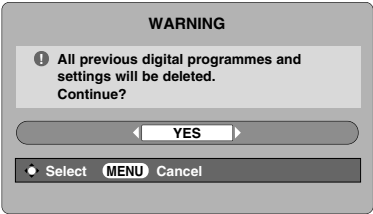
Digital auto tuning

NOTE: As new services are broadcast it will be necessary to re-tune the television in order to view them.

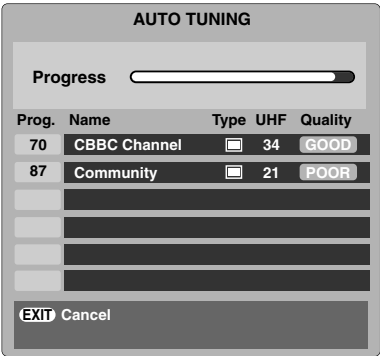
Auto tuning will completely re-tune the television and can be used to up date the channel list.

It is recommended that Auto tuning is run periodically to ensure that all new services are added. All current programmes and settings, i.e. favourites and locked programmes, will be lost.

- 1 Press **MENU**, the **SETUP MENU** will appear. Use **▼** to highlight **Auto tuning**. Press **OK**.
- 2 A screen will appear warning that previous digital programmes and settings will be deleted. Press **OK** to continue with the **Auto tuning**.

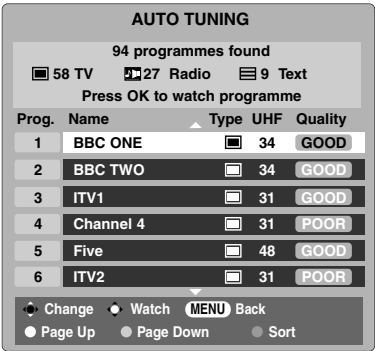


The television will start to search for all available stations.



You must allow the television to complete the search.

When the search is complete the **Auto tuning** screen will display the total number of services found.



- 3 Use **▼** or **▲** to move through the list to select a programme then press **OK** to view.

Analogue switch-off

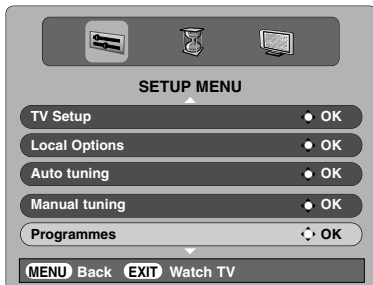
This is a **digital** television which is integrated to allow the use of both **digital** and **analogue** services. However, during the lifetime of this set it is very likely that **analogue** services will be switched off to allow for more new **digital** services.

This 'switch-off' will happen in a number of phases, which will be advertised in your area well in advance. It is recommended that at each phase the television is re-tuned to ensure that existing and new **digital** services can be viewed without disruption (see the 'Auto tuning' section).

Digital programme sorting

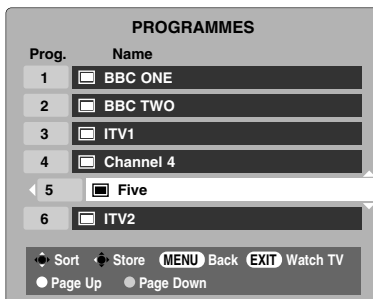
NOTE: When the television is switched off the mode being viewed at the time will automatically be selected when the television is switched back on.

- 1 The station order may be changed to suit personal preference. Press **MENU**, the **SETUP MENU** will appear on screen.
- 2 Use **▼** to move down through the list and highlight **Programmes**. Press **OK**.



- 3 With the list of stations now showing use **▼** or **▲** to highlight the station you want to move and press **►**.

The selected station will be moved to the right of the screen.



- 4 Use **▼** or **▲** to move through the list to your preferred position. As you do so the other stations will move to make room.
- 5 Press **◀** to store your move. Repeat as necessary, then press **EXIT**.

Digital manual tuning

This feature is available for service engineers or can be used for direct channel entry if the multiplex channel is known.

- 1 Select **Manual tuning** from the **SETUP MENU** and press **OK**.
- 2 Enter the multiplex number using the number buttons and then press **OK**. The television will automatically search for that multiplex.

When the multiplex is found any channels not currently on the programme list will be added and the programme information at the top of the screen will be updated.

- 3 Repeat as necessary. Press **EXIT** to finish.

Tuning Analogue mode

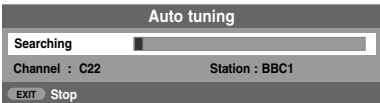
Quick Setup

The **Quick Setup** feature will tune all **analogue** channels currently available in the area. To put the television into **ATV** mode press the **ATV/DTV** button.

- 1 Select **ATV** mode. The **Quick Setup** screen will appear.



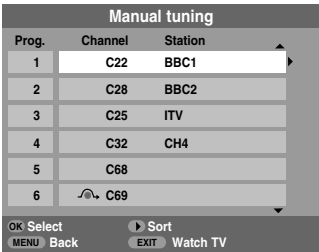
- 2 Using ◀ or ▶ select your **language**, then press (OK).
- 3 Then press ◀ or ▶ to select your **country**.
- 4 To start **Auto tuning** press (OK).



- 5 The search will begin for all available stations. The slide bar will move along the line as the search progresses.

You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1 and the **Manual tuning** screen will appear.



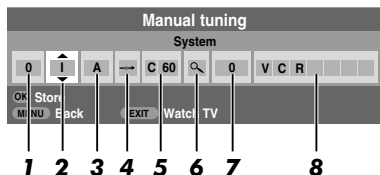
- 6 Use ▼ or ▲ to move through the list to select a programme then press (EXIT) to view.

The station order may be changed using the **Manual tuning** screen (see the **analogue** 'Sorting programme positions' section).

Manual tune

The television can be tuned-in manually using **Manual tuning**. For example: if the television cannot be connected to a media recorder/decoder with a SCART lead or to tune-in a station on another **System**.

Use **◀** and **▶** to move across the screen and select any of these **Manual Tune** options.



1 Programme:

The number to be pressed on the remote control.

2 System:

Specific to certain areas.

3 Colour system:

Factory set to Auto, should only be changed if problems are experienced, i.e. NTSC input from external source.

4 Programme skip:

↺ means nothing has been stored or the facility to skip the channel is ON. See page 18.

5 Channel:

The channel number on which a station is being broadcast.

6 Search:

Search up and down for a signal.

7 Manual fine tuning:

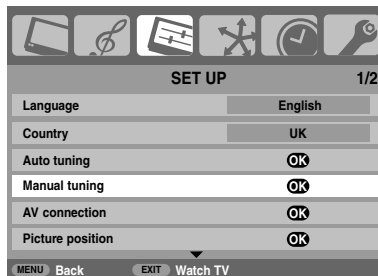
Only used if interference/weak signal is experienced. See page 41.

8 Station:

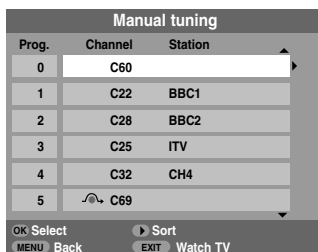
Station identification. Use the **▲** or **▼** and **◀** or **▶** buttons to enter up to seven characters.

To allocate a programme position on the television for a decoder and media recorder: turn the decoder on, insert a pre-recorded film in the media recorder and press PLAY, then manually tune.

- Press **MENU** and using **◀** or **▶** select the **SET UP** menu, with **▼** highlight **Manual tuning**, press **OK** to select.

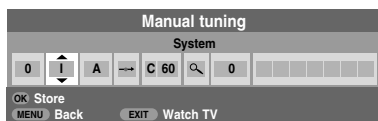


- Use **▲** or **▼** to highlight the programme position required e.g. we suggest **Prog. 0** for a media recorder.

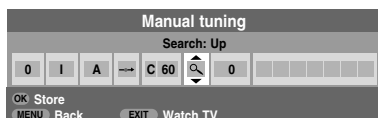


Different **Channel** numbers may be displayed.

- Press **OK** to select. If the programme is skipped, **Programme skip** must be removed before storing.



- Press **▶** to select **System** and use **▲** or **▼** to change if required.
- Then press **▶** to select **Search**.
- Press **▲** or **▼** to begin the search. The search symbol will flash.



- 7** Each signal will show on the television, if it is not your media recorder, press ▲ or ▼ again to restart the search.
- 8** When your media recorder signal is found, press ► to move along to **Station**. With ▲, ▼, ◀ and ▶ put in the required characters, e.g. **VCR**.



- 9** Press **OK** to store.
- 10** Repeat for each **programme position** you want to tune or, press **MENU** to return to the list of channels and select the next number to tune.
- 11** Press **EXIT** when you have finished.
- 12** To name external equipment, e.g. DVD on EXT2, press **↻** to select **↻**2, then select **Manual setting** from the **SET UP** menu.
- 13** Press ► to select **Label** then using ▲, ▼, ◀ and ▶ put in the required characters.



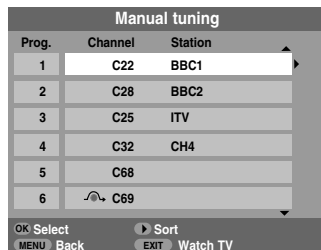
PLEASE NOTE

This television has direct channel entry if the channel numbers are known.
Select the **Manual tuning** screen in **Step 3**. Enter the **Programme number**, the **System**, then **C** for standard (terrestrial) channels or **S** for cable channels and the **Channel number**. Press **OK** to store.

Programme skip

To prevent certain programmes from being viewed, the programme position can be skipped. The remote control must be removed as the channels will still be available using the number buttons. Programmes can then be watched as normal using the controls on the television, but the television will not show the skipped programme position.

- 1** Select **Manual tuning** from the **SET UP** menu.



- 2** Use ▲ or ▼ to highlight the programme position to be skipped and press **OK** to select.
- 3** Press ► to select **Programme skip**.
- 4** Use ▲ or ▼ to turn **Programme skip** on. Press **OK**.

↻ on the screen indicates a skipped programme position.



- 5** Press **MENU** and repeat from **Step 2** or press **EXIT**.

Each programme position has to be *individually* selected. To turn **Programme skip** off, repeat the procedure for each position.

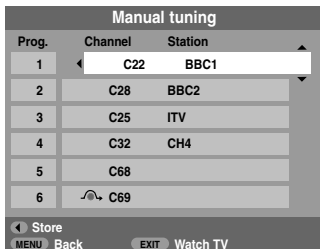
Skipped programme positions **cannot** be selected by **P▲** and **P▼** or by the controls on the television, but **can** still be accessed by the number buttons on the remote control.

Sorting programme positions

Channels may be moved and stored on the programme position of your choice.

- 1 Select **Manual tuning** from the **SET UP** menu.
- 2 With the list of stations now showing use ▲ or ▼ to highlight the station you want to move and press ►.

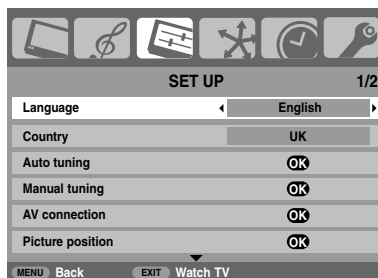
The selected station will be moved to the right of the screen.



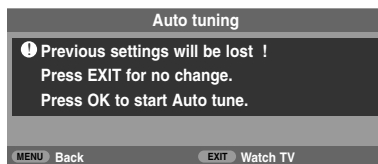
- 3 Use ▲ or ▼ to move through the list to your preferred position. As you do so the other stations will move to make room.
- 4 Press ◀ to store your move.
Repeat as necessary, then press EXIT.

Using Auto tuning

- 1 To set up the television using **Auto tuning**, press (MENU) and use ◀ or ► to select the **SET UP** menu.



- 2 Press ▼ to highlight **Language** and ◀ or ► to select.
- 3 Using ▼ highlight **Country**, then ◀ or ► to select. The television will now tune the stations for your country.
- 4 Press ▼ to highlight **Auto tuning**, then press OK.



- 5 To start **Auto tuning** press OK.

You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1. This may not be a clear picture, so the station order can be changed (see 'Sorting programme positions' section).

General controls

Selecting programme positions

To select a programme position use the numbered buttons on the remote control.

Programme positions can also be selected using **P▲** and **P▼**.

To display on-screen information i.e. programme position, input mode or stereo/mono signal, press **i+**. Press again to cancel.

The Time Display – analogue only

The time display facility allows the current (text service) time to be seen on the television screen.

Press **⏸/⏹** whilst watching a normal television broadcast to see a time display from the broadcaster. It will remain on screen for about 5 seconds.

Stereo and Bilingual transmissions

If stereo or dual language broadcasts are transmitted the word **Stereo** or **Dual** will appear on the screen each time programme positions are changed, disappearing after a few seconds. If the broadcast is not in stereo the word **Mono** will appear.

Stereo... Press **⏸/⏹** to select **Stereo** or **Mono**.

Bilingual... Bilingual transmissions are rare. If they are transmitted the word **Dual** will display. Choose the required programme number and if the word **Dual** appears press **⏸/⏹** to select **Dual 1**, **Dual 2** or **Mono**.

Sound controls

Volume controls and mute sound

Volume

Press **⏸** or **⏹** to adjust the volume.

Sound Mute

Press **⏸** once to turn the sound off and again to cancel.

Bass, Treble and Balance

The sound controls are accessible in **digital** and **analogue** modes, as are most of the televisions features.

1 In **digital** mode, press **⏸** and using **▼** highlight **TV Setup** then press **OK**.

2 Use **◀** or **▶** to select **SOUND**.

3 In **analogue** mode, press **⏸** and **◀** or **▶** to select **SOUND**.



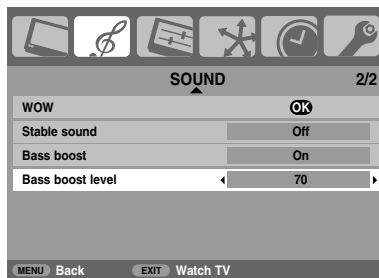
4 Press **▼** to highlight **Bass**, **Treble** or **Balance** and **◀** or **▶** to change the setting.

Bass boost

Bass boost enhances the depth of the sound on the TV speakers. The difference will only be noticeable on sound with a strong bass.

1 In the **SOUND** menu press **▼** to highlight **Bass boost**. Use **◀** or **▶** to select **On**.

2 Then press **▼** to highlight **Bass boost level** and using **◀** or **▶** adjust to suit your preference.



When an active Super Woofer is connected to the Woofer Out connection on the back of the television, select **AV connection** in the **SET UP** menu, press **▼** to highlight **Woofer** and using **◀** or **▶** select **External**. (See 'Input Selection and AV Connections' section).

SRS WOW® sound effects

SRS WOW® is a suite of audio effects which use the stereo signals being broadcast to produce enhanced sound from the television's speakers. If mono sound is broadcast only TruBass will be available.

SRS 3D® gives a rich sound experience, **SRS FOCUS®** concentrates the sound and gives the effect of it coming from the centre of the television, **SRS TruBass®** enhances the lower bass frequencies.

- 1 Press and select the **SOUND** menu.
- 2 Use or to highlight **WOW** then press .



- 3 Press to highlight **SRS 3D** and using or select between **On** or **Off**.
- 4 Then press to highlight **FOCUS** and press or to select between **On** or **Off**.
- 5 Highlight **TruBass** and use or to select **Off**, **Low** or **High** to suit your preference.

NOTE: This feature is not available through headphones.

Dual – analogue only

If a programme or film is being broadcast with a soundtrack in more than one language, the **DUAL** feature allows selection between them.

- 1 Press and select the **SOUND** menu.
- 2 Use to highlight **Dual** then press or to choose between **Dual 1** or **Dual 2**.

Stable sound®

The **Stable sound** feature limits high volume levels on the TV speakers, preventing the extreme changes in volume that can occur when channels are changed or a programme switches to a commercial.

- 1 Select the **SOUND** menu.
- 2 Use to highlight **Stable sound** then press or to select **On** or **Off**.

Headphone Mode

This setting is used to set the sound output while connecting the headphone. You can select either **Mode1** or **Mode2**.

Headphone mode	Headphone	Speakers
Mode1	Sound comes out (– + is available.)	No sound
Mode2	Sound comes out (Headphone level menu is available.)	Sound comes out (– + is available.)

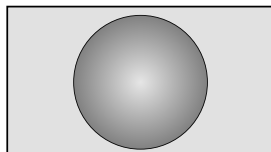
- 1 In the **SOUND** menu, press to highlight **Headphone** then press or to select **Mode1** or **Mode2**.
- 2 If you select **Mode2**, then highlight **Headphone Level** and using or to adjust the headphone sound.



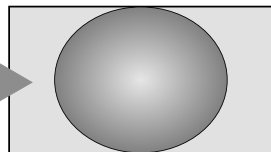
Widescreen viewing

Depending on the type of broadcast being transmitted, programmes can be viewed in a number of formats. Press **[F4]** repeatedly to select between **4:3**, **Super Live 1**, **Cinema 1**, **Subtitle**, **14:9**, **Wide**, **Super Live 2**, **Cinema 2** and **Native**.

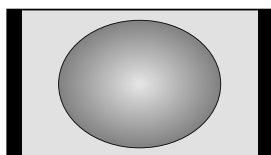
SUPER LIVE 1



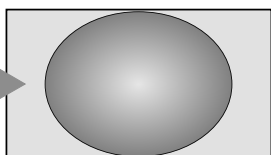
This setting will enlarge a 4:3 image to fit the screen by stretching the image horizontally and vertically, holding better proportions at the centre of the image. Some distortion may occur.



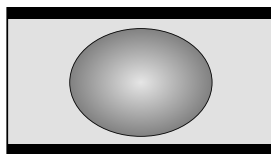
SUPER LIVE 2



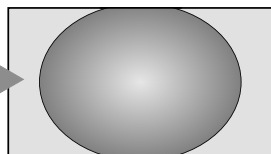
If a 'side panel format' signal is being received this setting will enlarge the image to fit the screen by stretching the image horizontally and vertically, holding better proportions at the centre of the image. Some distortion may occur.



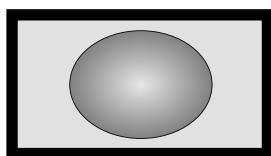
CINEMA 1



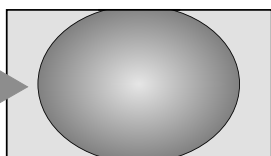
When watching 'letterbox format' films/video tapes, this setting will eliminate or reduce the black bars at the top and bottom of the screen by zooming in and selecting the image without distortion.



CINEMA 2

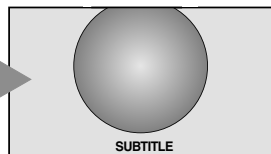


When watching 'all sides panel format' films/video tapes, this setting will eliminate or reduce the black bars at all sides of the screen by zooming in and selecting the image without distortion.



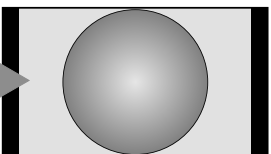
SUBTITLE

When subtitles are included on a letterbox format broadcast, this setting will raise the picture to ensure that all the text is displayed.



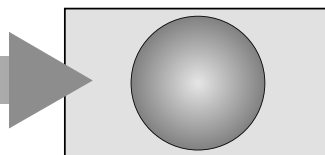
14:9

Use this setting when watching a 14:9 broadcast.

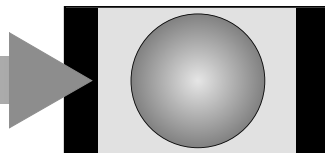


WIDE

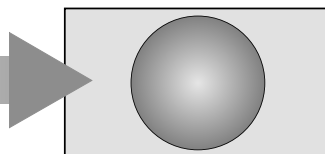
Use this setting when watching a widescreen DVD, widescreen video tape or a 16:9 broadcast (when available). Due to the range of widescreen formats (16:9, 14:9, 20:9 etc.) black bars may be visible on the top and bottom of the screen.

**4:3**

Use this setting to view a true 4:3 broadcast.

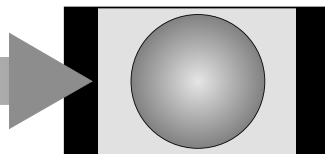
**Native**

When using a PC connected via HDMI this setting will show the picture without over scan, i.e. WYSIWYG. This option is only available when watching video signal source via HDMI.

**PC Normal**

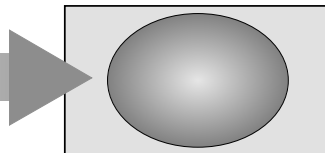
When using a PC connected via HDMI or PC terminal, this setting will show the picture without over scan, i.e. WYSIWYG.





This option is only available when watching PC signal source via HDMI or PC terminal.

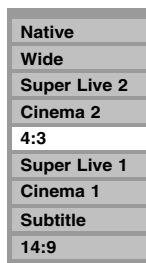
**PC Wide**

When using a PC connected via HDMI or PC terminal, this setting will show the picture without over scan and side panel.

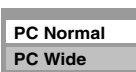
This option is only available when watching PC signal source via HDMI or PC terminal.



Press  and a list of the widescreen formats will appear on screen. Use  and  to highlight the required format and  to select.



or



Using the special functions to change the size of the displayed image (i.e. changing the height/width ratio) for the purposes of public display or commercial gain may infringe on copyright laws.

Picture controls

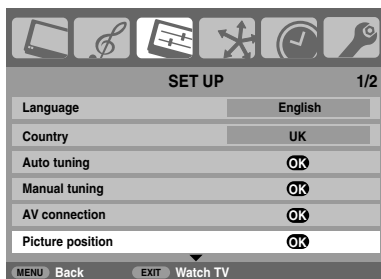
Most of the picture controls and functions are available in both **digital** and **analogue** modes. To access the required menus when in **digital** mode: press **MENU** and using **▼** select **TV Setup**, press **OK** then **◀** or **▶** to select the desired menu.

PLEASE NOTE: features not available in **digital** mode will be greyed out. To access the required menus when in **analogue** mode: press **MENU** and use **◀** or **▶** to select the desired menu.

Picture position – analogue only

The picture position may be adjusted to suit personal preference and can be particularly useful for external inputs.

- 1 In the **SET UP** menu press **▼** until **Picture position** is highlighted.



- 2 Press **OK** to view the options available for the picture format that has been selected.
- 3 Press **▲** and **▼** to select an option, then **◀** or **▶** to adjust the settings.

The options alter depending on the widescreen format chosen and when viewing connected equipment.

In **Cinema 2**:

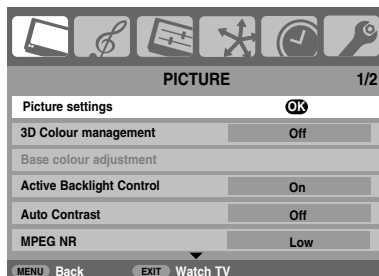


To return to the original factory settings select **Reset** in the **Picture position** menu and press **OK**.

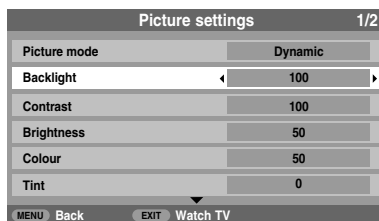
Backlight

Adjusting the **Backlight** can improve the clarity of the screen when viewing.




- 1 In the **PICTURE** menu press **▼** to select **Picture settings**, then press **OK**.



- 2 In the **Picture settings** menu press **▼** to select **Backlight**.
- 3 Press **◀** or **▶** to adjust.



Picture preferences

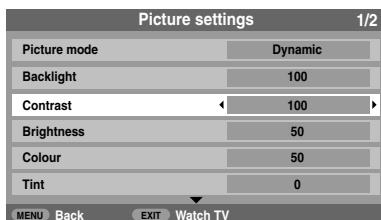
This television offers the choice of personalising the picture style. Press    to view the different styles available:



Dynamic, Standard, Mild, Movie, Game* and **PC**** are preset options and effect many features/settings within the television. You can customise current picture mode settings as desired. For example, while selecting "**Dynamic**," if you change the following items, such as **Backlight, Contrast, Brightness, Colour, Tint, Sharpness, Black/White Level, Cinema mode** and **Colour Temperature**, your new setting is stored as "**Dynamic-user**."

* **Game** mode is available in the external input mode (other than aerial input). When you select Game mode, the suitable widescreen formats will be selected.

** **PC** mode is available in the RGB/PC input mode or HDMI PC format mode.

- 1 Select **Picture settings** from the **PICTURE** menu.

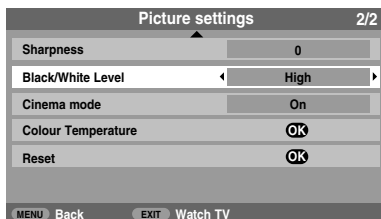




- 2 Use  or  to adjust the **Contrast, Brightness, Colour, Tint** and **Sharpness**.

Black/White Level

Black/White Level increases the strength of dark areas of the picture which improves the definition.




- 1 In the **Picture settings** menu press  until **Black/White Level** is highlighted.



- 2 Press  or  to select between **Low, Middle, High** and **Off**. The effect depends on the broadcast and is most noticeable on dark colours.

Cinema mode





If there are lines or jagged edges in the film or programme being viewed, selecting **Cinema mode** can help correct this by smoothing out the picture.

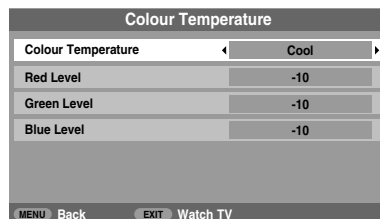
- 1 In the **Picture settings** menu press  to select **Cinema mode**.
- 2 Press  or  to select **On** or **Off**.

NOTE: When a DVD with subtitles is being played this mode may not work correctly.

Colour temperature

Colour Temperature increases the 'warmth' or 'coolness' of a picture by increasing the red or blue tint.



- 1 In the **Picture settings** menu press  until **Colour Temperature** is highlighted and press .
- 2 Press  or  to select between **Natural, Warm** and **Cool** to suit your preference.



- 3 Press  to select either **Red Level, Green Level**, or **Blue Level** then press  or  to adjust the settings.

Reset

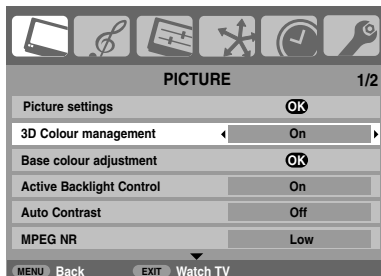
To reset the current **Picture mode** setting to the default values.

- 1 In the **Picture settings** menu press  to select **Reset**.
- 2 Press .

3D Colour management

When **3D Colour management** is selected it allows the 'Base colour adjustment' feature to become available.

- 1 In the **PICTURE** menu press ▼ to select **3D Colour management**.

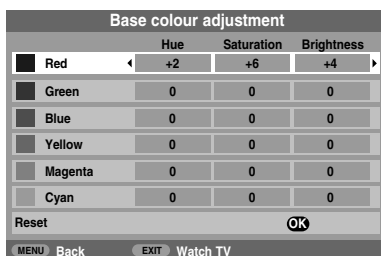


- 2 Press ◀ or ▶ to select **On** or **Off**.

Base colour adjustment

The **Base colour adjustment** feature allows the adjustment of individual colours to suit personal preference. This can be useful when using an external source.

- 1 In the **PICTURE** menu press ▼ to select **Base colour adjustment**, then press (OK).
- 2 Press ▲ or ▼ to select an option, then ▶ to adjust the settings.



- 3 Press ◀ or ▶ to select **Hue**, **Saturation** or **Brightness**, then press ▲ or ▼ to adjust the settings as required.

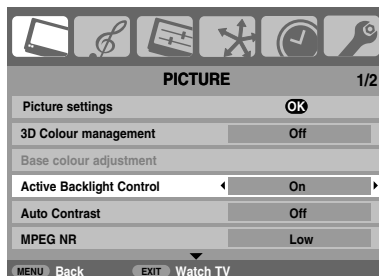


To return to the original factory settings select **Reset** and press (OK).

Active Backlight Control

When **Active Backlight Control** is activated it will automatically optimise the backlighting levels for dark scenes.

- 1 In the **PICTURE** menu press ▼ to select **Active Backlight Control**.



- 2 Press ◀ or ▶ to select **On** or **Off**.

Auto Contrast

When **Auto Contrast** is activated it will automatically optimise the backlighting levels to suit ambient room light conditions.

- 1 In the **PICTURE** menu press ▼ to select **Auto Contrast**.
- 2 Press ◀ or ▶ to select **On** or **Off**.

MPEG NR – Noise Reduction

When watching a DVD the compression may cause some words or picture elements to become distorted or pixelated. Using the **MPEG NR** feature reduces this effect by smoothing out the edges.

- 1 Select **MPEG NR** from the **PICTURE** menu. Use ◀ or ▶ to select a setting to suit your preference.


DNR – Digital Noise Reduction

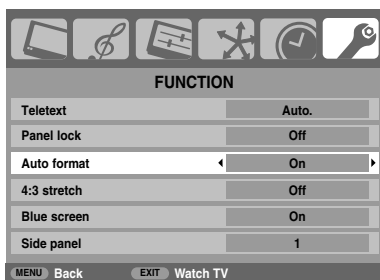
DNR enables you to 'soften' the screen representation of a weak signal to reduce the noise effect.

- 1 Select **DNR** from the **PICTURE** menu.
- 2 Use ◀ or ▶ to select between **Low**, **Middle**, **High**, **Auto**, and **Off**. The differences may not always be noticeable (for the best result use lower settings as picture quality can be lost if the setting is too high).

Automatic format (Widescreen)

When this television receives a true Widescreen picture and **Auto format** is **On**, it will automatically be displayed in Widescreen format, irrespective of the television's previous setting.

- 1 Press  and ◀ or ▶ to select the **FUNCTION** menu.



- 2 Press ▼ to highlight **Auto format**, then ◀ or ▶ to select **On** or **Off**.

4:3 stretch

When **4:3 stretch** is activated the size switching system changes 4:3 programs into a full screen picture.

- 1 In the **FUNCTION** menu press ▼ to highlight **4:3 stretch**.
- 2 Press ◀ or ▶ to select **On** or **Off**.

Blue screen

When **Blue screen** is selected the screen will turn blue and the sound will be muted when no signal is received.

- 1 In the **FUNCTION** menu press ▼ to highlight **Blue screen**.
- 2 Press ◀ or ▶ to select **On** or **Off**.



Side panel adjustment

The **Side panel** feature lightens or darkens the band each side of the screen when in 4:3 or 14:9 format. This helps prevent image retention of the band and can also make viewing in bright or dark conditions more comfortable.

- 1 In the **FUNCTION** menu press ▼ until **Side panel** is highlighted.
- 2 Press ◀ or ▶ to adjust.

Picture still

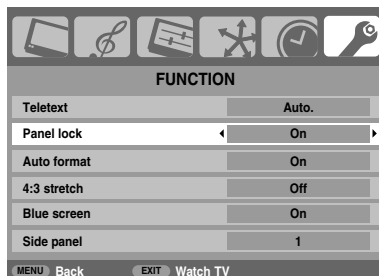
This feature is used to hold a still image on the screen.

- 1 Press  to hold an image on the screen, press  again to cancel.

Panel lock

Panel lock disables the buttons on the television. All buttons on the remote control can still be used.

- 1 From the **FUNCTION** menu select **Panel lock** and choose **On** or **Off** using ◀ or ▶.



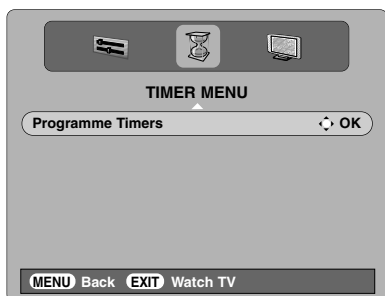
When **Panel lock** is **On**, a reminder will appear when the buttons on the television are pressed. If the **standby button** is pressed the television will switch off and can only be brought out of standby by using the remote control.

The timers

Programme timer – digital only

This feature will set the television to go to a specific channel at a certain time. It can be used to view a particular programme, or by setting the mode to daily or weekly, can be used to view a series of programmes.

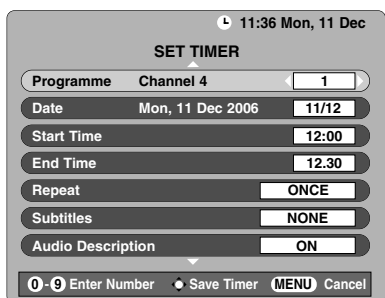
- 1 Press **MENU** and **◀** or **▶** to select the **TIMER MENU**.



- 2 Press **▼** to select **Programme Timers**, then press **OK** to select.

- 3 Press **▼** to select the first programme to be timed, then press **OK**. The **SET TIMER** menu will now appear on screen.

- 4 Press **▲** and **▼** to go through the list adding the details of the programme to be timed by using the number buttons and **◀** and **▶** to make selections.



- 5 When all the details have been entered press **OK** to save the timer.

PLEASE NOTE: When a timed programme is about to start, an information screen will appear offering the option of watching or cancelling the programme. The menus and other channels will not be available during the timed programme unless the programme timer is cancelled. The programme timer you set is not performed while the TV is turned off with the **⏻** / **POWER** switch.

Sleep timer

The television can be set to turn itself **Off** after a certain time.

- 1 Press **MENU** and **◀** or **▶** to select the **TIMER** menu.



- 2 Press **▼** to select **Sleep timer**. Use the number buttons to set the required time. For example, to switch the television off in one and a half hours enter 01:30, or press **▶**/**◀** to increase/decrease in steps of 10 minutes.

- 3 Press **EXIT** to finish.

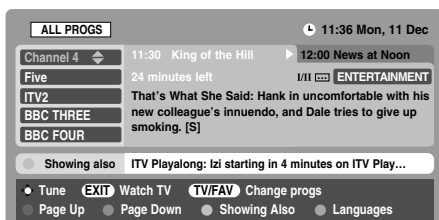
- 4 To cancel the **Sleep timer**, enter zero in above setting.

Digital on-screen information and Programme Guide

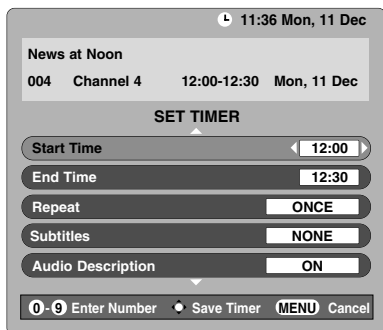
When viewing in **digital** mode, the on-screen information and programme guide give access to programme details for all available channels.

Information

- 1 Select information by pressing **i+**, the information screen will appear giving details of the channel and programme currently being viewed.



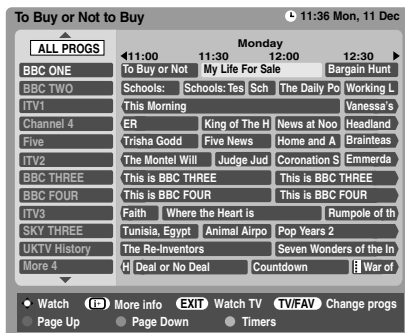
- 2 To see details of any of the other channels currently available, press **▲** and **▼** to scroll up and down the channel list. As the channel is selected details of the programme currently being broadcast will appear.
- 3 Pressing the **YELLOW** button will activate **Showing also**, giving details of programmes which have started on other channels.
- 4 To record the following programme, with the information guide showing, press **►**. The **Tune** option in the bottom section of the screen will change to **Record**, press **OK**. The **SET TIMER** screen will appear.



- 5 The details of the programme will have been added to the screen. Press **OK** to save.

Guide

- 1 Select the on-screen guide by pressing **GUIDE**, the guide screen will appear highlighting details of the channel and programme currently being viewed. This may take a few moments to appear.



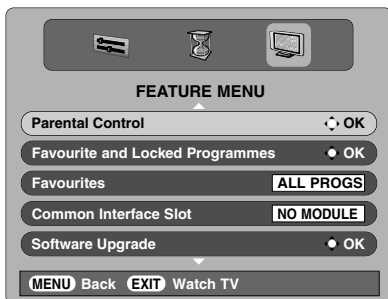
- 2 Press **◀** or **▶** for information of other programmes scheduled for the channel selected.
 - 3 For details of other channels currently available, press **▲** and **▼** to scroll up and down the channel list. As the channel is selected details of the programme currently being broadcast will appear, then press **◀** or **▶**.
 - 4 For information on a highlighted programme press **i+**. To set the timer for that programme press the **BLUE** button to bring up the **Programme timers** menu.
- NOTE:** Recording can be set from **both** the information screen and guide. In order for recording operation to work properly, the media recorder must be set the timer as same as the TV. Regarding to process for recording, please refer to the owner's manual of the recording equipment.
- 5 Press **►►** to move the **Guide** forward by 24 hours, press **◄◄** to go back. Pressing **►►** or **◄◄** will move the **Guide** forwards or backwards a page at a time.

Digital settings – parental control

In order to prevent viewing of unsuitable films and programmes, channels and menus can be locked. These can then only be accessed with a security code PIN when in **digital** mode.

Setting the PIN

- 1 Press **MENU** and **▶** to select the **FEATURE MENU**.

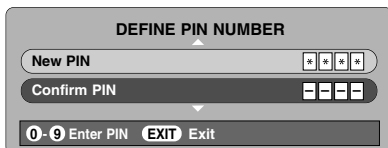


- 2 Use **▼** to select **Parental Control** then press **OK**.

- 3 Press **▼** to highlight **Change PIN** then press **OK**.



- 4 Using the number buttons enter a four digit number, when these have been entered the screen will ask you to confirm them by entering them again.



The PIN number is now set. To activate put the television into standby.

Mode

This feature locks various menus to prevent the television being returned or the settings being overridden.

- 1 In the **PARENTAL CONTROL** menu press **▼** to select **Mode**.



- 2 Use **◀** or **▶** to choose between **ON**, **LOCK MENU**, **LOCK INSTALL** and **OFF**.

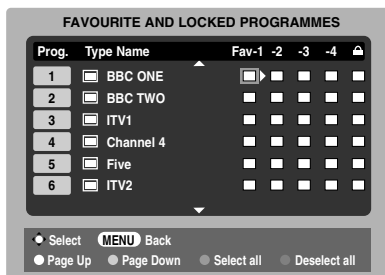
When menus that have been locked are now selected they will only become available when the PIN is entered.

Digital settings – other features

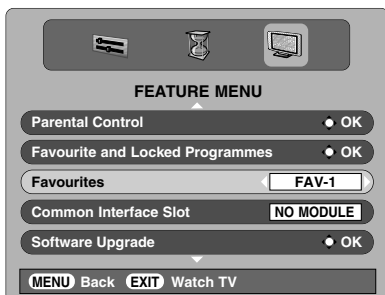
Selecting favourite programmes

Favourite Programmes creates a list of the **digital** channels that are watched most. Four lists can be created, these can be a mixture of television, text and radio channels.

- 1 From the **FEATURE MENU** press ▼ to select **Favourite and Locked Programmes**.



- 2 Use ▲ and ▼ to go through the list of channels pressing (OK) to select the ones required, a tick will appear in the box.
- 3 Press ► to select list **Fav-2**. Follow the same procedure to make the selection. When all favourites have been selected press (MENU) to return to the **FEATURE MENU**.
- 4 Use ▼ to highlight **Favourites** and ◀ or ▶ to select between **ALL PROGS**, **TV**, **RADIO**, **FAV-1** and **FAV-2**. The number of favourites available depends on how many lists have been created.



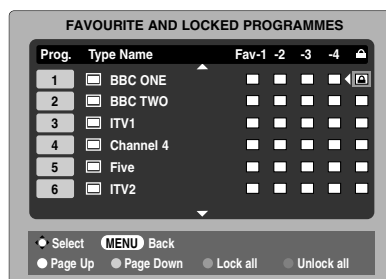
- 5 Press (EXIT).

Using the ^ P v buttons will now only access those channels in **Favourite List 1** when **FAV-1** is selected.

Locking programmes

Locked Programmes stops the viewing of **digital** channels, they can only be accessed by entering the **PIN**.

- 1 From the **FEATURE MENU** press ▼ to select **Favourite and Locked Programmes**.
- 2 Press ► repeatedly to select the **Locked Programme** list.
- 3 Use ▲ and ▼ to go through the list of channels pressing (OK) to select the ones required, a padlock will appear in the box.



- 4 Press (EXIT) and put the television into standby.
- 5 When the television is switched back on and any of the channels in the **Locked Programme** list are selected the **PIN** must be entered before they can be accessed.

Encrypted programmes

Selecting **Encrypted Programmes** allows all encrypted programmes to be shown in the programme list even if they are not available to select.

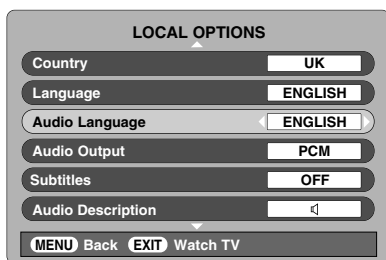
- 1 In the **FEATURE MENU** press ▲ or ▼ to select **Encrypted Programmes**.
- 2 Use ◀ or ▶ to select **ON** or **OFF**.

NOTE: CAMs (Conditional Access Modules) are available from service providers (see 'Common Interface' section)

Audio languages

This feature allows a programme or film to be viewed with a choice of soundtrack language, provided they are currently being broadcast.

- 1 In the **SETUP MENU** press ▼ to select **Local Options**.
- 2 Press **OK**, then press ▲ and ▼ to highlight **Audio Language**.



- 3 Use ◀ or ▶ to select an option.

NOTE: If more than one soundtrack is available, use **◂/▸** to select between them.

Optical audio output

When connecting a surround sound amplifier to the digital audio output (Sony/Philips Digital Interface Format [S/PDIF]), the following options can be selected.

PCM: this mode outputs PCM format to the digital audio output socket.

BITSTREAM: this mode outputs audio format (eg. Dolby Digital) to the digital audio output socket providing it is being broadcast. It will automatically mute the speakers.

- 1 In the **LOCAL OPTIONS** menu press ▼ to select **Audio output**.
- 2 Use ◀ or ▶ to select **PCM** or **BITSTREAM**

Subtitles

This feature will show subtitles on the bottom of the screen in the selected language provided they are being broadcast.

- 1 In the **LOCAL OPTIONS** menu press ▼ to select **Subtitles**.
- 2 Use ◀ or ▶ to select an option.

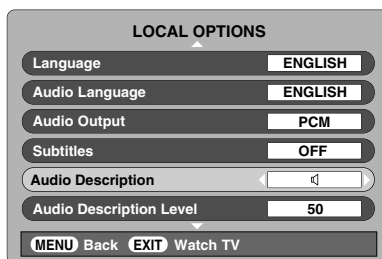
Audio description

Audio description is an additional narrative sound track for visually impaired people to understand and enjoy the story line more fully.

If this function is activated by pressing **AD** button, when the programme has such signal, the word **AD** will be displayed in the Channel Banner.

You can select sound from speakers or headphone as you desire.

- 1 In the **LOCAL OPTIONS** menu press ▼ to select **Country**. Use ◀ or ▶ to select **UK**. (The Audio Description function is enable only when the **Country** setting is in **UK**.)
- 2 Highlight **Audio Description** then press ◀ or ▶ to choose **speaker** or **headphone**.



speaker : sound from both the headphone and speakers.

headphone : sound from the headphone.

See "Headphone Mode" on page 21 to adjust the headphone sound.

- 3 To adjust the audio description sound volume, highlight **Audio Description Level** and use ◀ or ▶.

Reset TV

Selecting **Reset TV** will delete all stored **digital** channels and settings. The television will return to factory settings and then auto tune.

- 1 In the **SETUP MENU** press ▼ until **Reset TV** is highlighted.
 - 2 Press **OK** to select. A screen will appear warning that all digital settings will be lost, press **OK** to continue.
- The Welcome screen will appear, press **OK** to continue, the television will then auto tune.

Common interface

The **Common Interface Slot**, situated on the back of the television, enables the insertion of a CAM (Conditional Access Module) and card. These are purchased from a service provider and allow additional subscription broadcasts to be viewed. For information see a service provider.

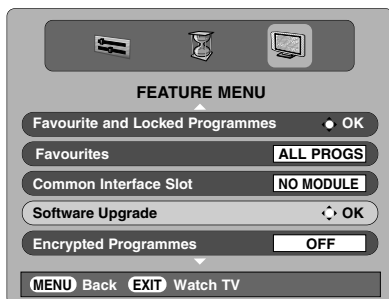
- 1 Insert the CAM and card into the Common Interface Slot, following the instructions provided with the CAM. A box will appear on screen to confirm that the CAM is loaded.
- 2 In the **FEATURE MENU** press ▲ or ▼ to select **Common Interface Slot**.
- 3 Details of the CAM should now be available. Use (OK) to select it.

Digital settings – software upgrade

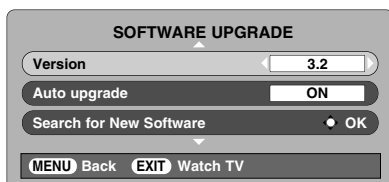
Version

This feature can be used to check the version of software currently installed.

- 1 From the **FEATURE MENU** press ▲ or ▼ to select **Software Upgrade**. Press (OK).



- 2 Press ▲ or ▼ to select **Version**. Use ◀ or ▶ to select. When the software has been updated there will be a choice of two versions available.



Auto Upgrade

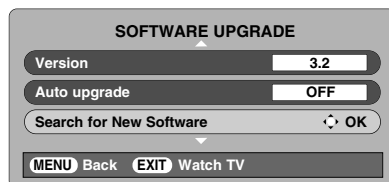
If **Auto upgrade** is selected the software will automatically update as each version becomes available, provided the television is on or in standby. If the television is on, a screen prompt will appear showing the software download taking place.

- 1 In the **SOFTWARE UPGRADE** menu press ▲ or ▼ to select **Auto upgrade**.
- 2 Use ◀ or ▶ to select **ON** or **OFF**.

Searching for new software

If preferred, software upgrades can be searched for manually using **Search for New Software**.

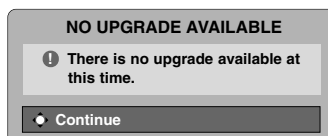
- 1 In the **SOFTWARE UPGRADE** menu press ▲ or ▼ to select **Search for New Software**.



- 2 Press (OK). The television will automatically start searching for a software upgrade, the progress bar will move along the line.



If an upgrade is found the television will automatically start downloading, if not a screen will appear stating that an upgrade is unavailable.



PC settings – picture position, clock phase, sampling clock, reset

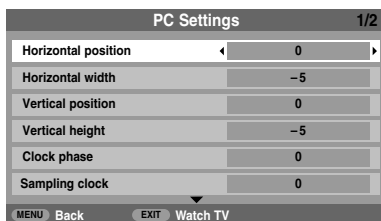
Picture position

Connect the PC (as shown in the 'Connecting a PC' section) and ensure that a picture is showing on the television screen. The picture position may now be adjusted to suit personal preference.

- 1 Press \odot to select **PC**, then select **PC Setting** from the **SET UP** menu.



- 2 Press \odot . Press \blacktriangle and \blacktriangledown to select an option, then \blacktriangleleft or \blacktriangleright to adjust the settings.



Clock phase

The **Clock phase** matches the PC signal with the LCD display. Adjusting this can clear horizontal stripes and picture blur.

- 1 In the **SET UP** menu press \blacktriangledown until **PC Setting** is highlighted.
- 2 Press \odot to select, then \blacktriangledown to highlight **Clock phase**.
- 3 Use \blacktriangleleft or \blacktriangleright to adjust until the picture clears.

Sampling clock

Adjusting the **Sampling clock** alters the number of pulses per scan, this will clear vertical lines on the screen.

- 1 In the **SET UP** menu press \blacktriangledown until **PC Setting** is highlighted.
- 2 Press \odot to select, then \blacktriangledown to highlight **Sampling clock**.
- 3 Use \blacktriangleleft or \blacktriangleright to adjust until the picture clears.

Reset

To return to the original factory settings.


- 1 In the **SET UP** menu press \blacktriangledown until **PC Setting** is highlighted.
- 2 Press \odot to select, then \blacktriangledown to highlight **Reset**.
- 3 Press \odot .

NOTE: When a PC is connected using HDMI none of these functions will be available.

Input selection and AV connections

Defining the INPUT and OUTPUT sockets so that the television recognises connected equipment. See page 8 for a clear view of the back connection recommendations.

Most media recorders and decoders send a signal through the SCART lead to switch the television to the correct *Input* socket.





Alternatively press the external source selection button  until the picture from connected equipment is shown.

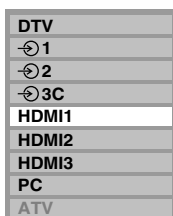
This button must be used to view equipment connected using the COMPONENT VIDEO INPUT (**EXT3**).

An **S** in the display e.g.  **2S (EXT 2S)**, indicates the input is set for an S-Video signal.

Input selection

Use the Input Selection if the television does not switch over automatically.

- At any time by pressing  a list will appear on screen showing all stored programmes and external equipment. Use  and  to highlight and  to select.





NOTE: When in **digital** mode **ATV** cannot be selected, in **analogue** mode **DTV** cannot be selected. To switch between **DTV** and **ATV** press the **ATV/DTV** button.

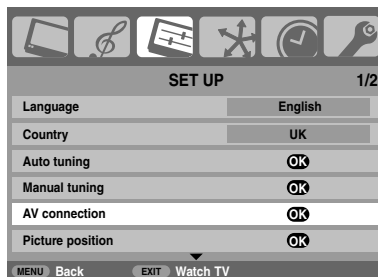
HDMI™ displays equipment connected to *Input* HDMI on the back of the television.



PC displays a computer connected to *Input* RGB/PC on the back of the television.

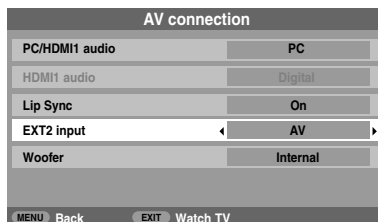
INPUT signal selection

This specifies the type of signal going into SCART 2 (**EXT2**) on the back of the television. Please refer to the manufacturers instructions for the connected equipment.

- In the **SET UP** menu press  until **AV connection** is highlighted, then press .



- With  or  select either **AV** or **S-VIDEO** as the required **input** for **EXT2**.

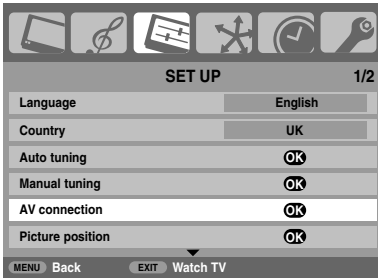


If the colour is missing try the alternative setting.

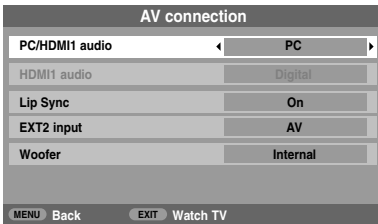
PC audio

In order to receive sound from a connected PC, plug the audio cable into the back of the television (as shown in 'Connecting a computer' section), then use the **PC/HDMI1 audio** settings.

- 1 In the **SET UP** menu press ▼ until **AV connection** is highlighted, then press **OK**.



- 2 Highlight **PC/HDMI1 audio** then use ► to select the **PC** option.

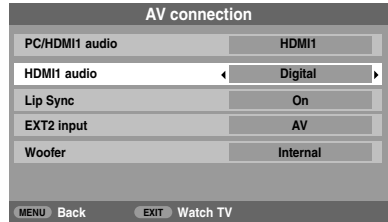


NOTE: Selecting the **PC** option will force HDMI into digital audio.

HDMI1 audio

If the connected HDMI source does not support digital audio, plug the audio cable into **PC/HDMI1 (AUDIO)** on the back of the television (as shown in the 'Connecting an HDMI™ or DVI device to the HDMI input' section), then use the **HDMI1 audio** settings.

- 1 In the **AV connection** menu press ▼ to highlight **PC/HDMI1 audio** and using ► select **HDMI1**.
- 2 Then highlight **HDMI1 audio** and using ◀ or ► select **Auto.**, **Digital** or **Analogue**.



If the sound is missing select an alternative setting.

NOTE: HDMI1 supports digital and analogue sound, HDMI2 and HDMI3 are digital sound only.

Certain formats of DVD disk may not output from this TV (32/44.1/48kHz and 16/20/24 bits are acceptable).

Lip Sync Latency

Lip Sync can synchronize the sound and picture. This feature is only available when equipment compatible with Lip Sync is connected via HDMI.

NOTE: Disconnect the HDMI cable before changing the **Lip Sync** setting. If the HDMI cable is connected, a message will appear.

- 1 In the **AV connection** menu press ▼ to highlight **Lip Sync**.
- 2 Using ◀ or ► select **On** or **Off**.

HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

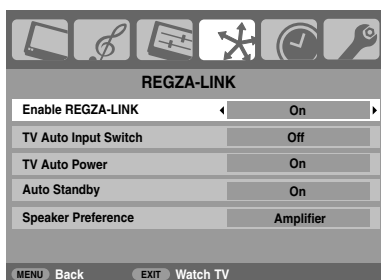
Using REGZA-LINK

This is a new feature that uses CEC technology and allows you to control Toshiba REGZA-LINK compatible devices from the television remote control via HDMI connection (page 10).

When the **Enable REGZA-LINK** item in the **REGZA-LINK** menu is set to **On**, individual functions also set to **On** will be activated.

Enable REGZA-LINK

- 1 Press **MENU** and **◀** or **▶** to select the **REGZA-LINK** menu.
- 2 Press **▼** to highlight **Enable REGZA-LINK**, then **◀** or **▶** to select **On**.



NOTE: If you set **Enable REGZA-LINK** to **Off**, the all other items will be grayed out.

TV Auto Input Switch

TV Auto Input Switch allows the television to automatically switch to the appropriate HDMI input when a connected HDMI device starts playing video or audio.

- 1 In the **REGZA-LINK** menu press **▼** to highlight **TV Auto Input Switch**.
- 2 Press **◀** or **▶** to select **On** or **Off**.

TV Auto Power

The **TV Auto Power** setting allows the television to be automatically switched on or off if a REGZA-LINK device is turned on or off.

- 1 In the **REGZA-LINK** menu press **▼** to highlight **TV Auto Power**.
- 2 Press **◀** or **▶** to select **On** or **Off**.

Auto Standby

When the **Auto Standby** is enabled the television when switched off will automatically switch off (standby mode) all connected REGZA-LINK equipment.

- 1 In the **REGZA-LINK** menu press **▼** to highlight **Auto Standby**.
- 2 Press **◀** or **▶** to select **On** or **Off**.

Speaker Preference

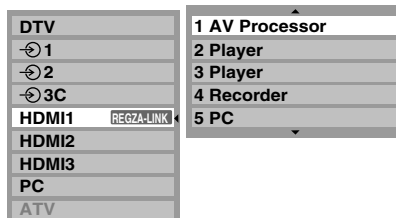
This feature allows the audio output preference to be set to the TV speakers or AV amplifier speakers. The AV Amplifier option lets the televisions remote control adjust or mute the volume of the audio. This feature will be greyed out unless a REGZA-LINK compatible AV Amplifier is connected.

- 1 In the **REGZA-LINK** menu press **▼** to highlight **Speaker Preference**.
- 2 Press **◀** or **▶** to select **TV Speakers**, **Amplifier** or **Off**.

REGZA-LINK input source selection

If a REGZA-LINK device with HDMI switching capability (e.g. AV amplifier) is connected to the HDMI input, you can select another REGZA-LINK device that is connected to the master HDMI device on the input source list.

- 1 Press **↻** and a list will appear on screen showing modes and all stored external equipment.
- 2 Press **▼** to select the desired input source with REGZA-LINK icon.
- 3 Press **▶** and a second selection screen will appear showing all connected REGZA-LINK equipment.



- 4 Press **▲** or **▼** to select the desired input source, and then press **OK**.

NOTE:

- These functions depend on the device connected.
- If you select the REGZA-LINK input source from the popup window, some REGZA-LINK devices may automatically turn on.
- When the television is switched on it will take a few minutes for the REGZA-LINK icon to appear in the list, when an HDMI cable is removed it will take a few minutes for the icon to disappear.
- If the HDMI cable from connected equipment is changed **Enable REGZA-LINK** in the REGZA-LINK setup menu may need to be reset to **On**.
- If you change HDMI lead to connect device or HDMI device setting, reset **Enable REGZA-LINK** item on the REGZA-LINK setup menu from **Off** to **On**.

REGZA-LINK playback device control

With REGZA-LINK mode on your televisions remote control, you can control the connected REGZA-LINK playback device you are watching.

To control the REGZA-LINK input source first select the equipment with REGZA-LINK input source selection, then switch the mode on the remote control to **REGZA-LINK** and press any buttons.



See page 6 for details on available remote control key functions.

NOTE: The available functions depend on the equipment connected. Not all the remote control keys may be available. Please refer to the operation manual for each piece of equipment connected.

REGZA-LINK one touch play

When connected equipment is switched on REGZA-LINK will automatically detect the television through the input selection. If the television is in standby it will be switched on automatically.

These functions enable or disable can set on the REGZA-LINK setup (see page 37).

NOTE:

- Even if the equipment is showing a menu the television may automatically show the input source.
- This feature depends on the connected equipment and television state.

REGZA-LINK system standby

If the television is turned off (standby mode), the television will send a message to turn off (standby mode) all of the REGZA-LINK devices connected to the television.

These functions enable or disable can set on the REGZA-LINK setup (see page 37).

NOTE: This feature depends on the connected equipment and television state.

REGZA-LINK system audio control

With your television's remote control, you can adjust or mute the sound volume of the speakers connected to the television via an AV amplifier. First, set the remote control mode switch to REGZA-LINK.

- 1 Set the **Speaker Preference** to **Amplifier** in the **REGZA-LINK** menu.
- 2 Confirm that a connected REGZA-LINK device (such as DVD player, etc) is selected for the AV amplifier input source.

NOTE:

- These functions depend on the device connected.
- When you turn on the AV amplifier, change its input source, or adjust the sound volume, the sound will be output from the AV amplifier's speakers even if **TV Speakers** has been selected. Turn the television off and on again to output the sound from the TV Speakers.
- This feature may not work if the AV amplifier is operated.

REGZA-LINK PC link

This feature automatically adjusts the suitable widescreen formats and picture preferences, when connected to a REGZA-LINK PC.

NOTE: This feature depends on the connected equipment state.

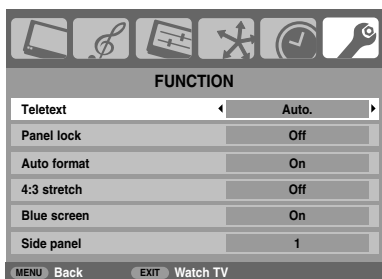
Text services

This television has a multi-page text memory, which takes a few moments to load. It offers two **Modes** of viewing text – **Auto**. will display **Fastext**, if available. **LIST** will store your four favourite pages.

Selecting modes

The text character set will be automatically chosen by the language setting in the **SET UP** menu.

- 1 Select **Teletext** from the **FUNCTION** menu.
- 2 With ◀ or ▶ choose **Auto**. or **LIST** then press **EXIT**.



Text information

The **TEXT** button:

To view text services press **TEXT**. Press again to superimpose the text over a normal broadcast picture and again to return to normal viewing. Programmes cannot be changed until text is cancelled.

The first text page shown will be the *initial* page.

Any text page can be accessed by entering the 3 digit page number using the numbered buttons, pressing the coloured buttons or pressing **P▲** to advance to the next page and **P▼** to go back to the previous page.

NOTE: While viewing text services, the on-screen menu will not appear when you press **MENU**.

Sub-pages

If there are sub-pages they will automatically load into memory without changing the page on screen.

To access the sub-pages press **⏏** then use **P▲** and **P▼** to view them. A bar with numbers will appear on the side of the screen.

The sub-page you are viewing will be highlighted and, as the television loads any additional sub-pages the colour of the numbers will change, indicating that these pages have been loaded.

These sub-pages will remain available to view until another page is chosen or, in normal TV mode, the channel is changed.

Navigating pages using **Auto**.

If **Fastext** is available four coloured titles will appear at the base of the screen.

To access one of the four given subjects, press the relevant coloured button on the remote control.

For further information on your particular text system(s), see the broadcast text index page or, consult your local Toshiba dealer.

Navigating pages using **LIST**

The four coloured choices at the bottom of the screen are numbers – 100, 200, 300 and 400, which have been programmed into the television's memory. To view these pages press the relevant coloured buttons.

To change these stored pages press the relevant coloured button and enter the 3 digit number. This number will change in the top left of the screen and in the coloured highlight.

Press **OK** to store. The bars at the bottom of the screen will flash white. **Whenever **OK** is pressed all four page numbers showing at the bottom will be stored and the previous ones will be lost.**


If **OK** is not pressed the selection will be forgotten when text is cancelled.

Other pages may be viewed by entering the 3 digit page number – but DO NOT press **OK** or these pages will be stored.

Control buttons

Below is a guide to the functions of the remote control text buttons.

To display the index/initial page:

Press  to access the index/initial page. The one displayed is dependant on the broadcaster.


TEXT To display a page of text:

Press **TEXT** to display text. Press again to superimpose text over a normal picture. Press again to return to normal television viewing. Programmes cannot be changed until this has been done.



To access sub-pages:

For use with **P^** and **Pv** to view sub-pages when available.


To reveal concealed text:

To discover the solutions on quiz and joke pages press the  button.


To hold a wanted page:

At times it is convenient to hold a page of text. Press  and  will appear in the top left of the screen. The page will be held on screen until the button is pressed again.



To enlarge the text display size:

Press  once to enlarge the top half of the page, press again to enlarge the bottom half of the page. Press again to revert to normal size.

To select a page whilst viewing a normal picture:

Enter the page number then press , a normal picture will be displayed. The television will indicate when the page is present by displaying the page number at the top of the screen. Press **TEXT** to view the page.

To display news flashes:

Select the news flash page for the chosen text service (see the index page of text service). Press . The news flashes will be displayed as and when they are broadcast. Press  again to cancel the display.

The news flash page must be cancelled before changing programmes.



Remember to cancel text before changing channels - press the TEXT button twice.

Digital interactive services

The **digital** interactive services are the up-to-date way of viewing service information, using computer-style formats, incorporating pictures and interactive views.

They offer high quality on-screen images with multicolour photographic still images, advanced text and graphics and are user-friendly. These services are free to anyone with a digital television, however, they are not available for all digital stations and are dependant on the broadcaster.

- 1** Ensure that **digital** mode has been selected. Press **TEXT**, it may take a few moments to load.
- 2** To navigate the pages and use the pull-down menus, use the coloured buttons and **▲**, **▼**, **◀** and **▶** as directed.
- 3** Press **TEXT** again at any time to cancel.

Questions and Answers

Below are the answers to some of the most common queries.
For more information go to www.toshiba.co.uk

Q Why is there no sound or picture?

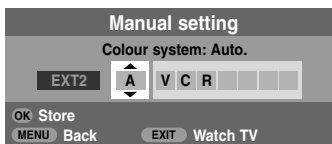
A Check the television is not in standby mode. Check the mains plug and all mains connections.

Q There is a picture, but why is there little or no colour?

A When using an **external** source, for instance, a poor quality video tape, if there is little or no colour, improvements may sometimes be achieved. The colour is factory set to **Auto.** to automatically display the best colour system.

To check that you have the best colour:

- 1 With the external source playing, select **Manual setting** from the **SET UP** menu.



- 2 With **▲** or **▼** choose between **Auto.**, **PAL**, **SECAM**, **NTSC 4.43** or **3.58**.

Q Why doesn't the video/DVD being played show on screen?

A Make sure the VCR or DVD player is connected to the television as shown on page 8, then select the correct input by pressing **⏏**.

Q Why is there a good video picture but no sound?

A Check all lead connections.

Q Why is there a picture but no sound?

A Check the volume has not been turned down or that sound mute has not been selected.

Q Why is the VCR/DVD picture in black and white?

A Check the correct **input** has been chosen, **S-VIDEO** or **AV**. See **AV connections** on page 35.

Q What else can cause a poor picture?

A Interference or a weak signal. Try a different television station. **Manual fine tuning** may help.

- 1 Select the **Manual tuning** menu. Highlight the station and press **OK**, then press **▶** to select **Manual fine tuning**.
- 2 Using **▲** or **▼** adjust to get the best picture and sound. Press **OK** and then **EXIT**.



Q Why don't the controls on the front of the television work?

A Check that **Panel lock** is not **ON**.

Q Why doesn't the remote control work?

A Check the side switch on the remote control is in TV mode. Check the batteries aren't dead or inserted incorrectly.

Q Why is there a message permanently on the screen?

A Remove it by pressing **i+**.

Q Why is the DTV main menu unavailable?

A Another mode is selected. Press **ATV/DTV** to select **DTV**.

Q Why are some of the menus locked?

A **Lock Menu** has been enabled (see 'Parental Controls' page).

Q Why is the digital channel locked?

A The channel has been selected in **Locked Programmes** (see 'Digital Settings' section).

Q Why can only certain digital channels be viewed?

A A **Favourite** list has been selected (see 'Favourite Programmes' section), set the feature to **ALL PROGS** or change channels by using the number buttons.


Q Why are some of the digital subscription channels unavailable?

A Your subscription needs upgrading. Contact your service provider.

Q Why is the soundtrack in English when a different audio language has been selected?

A The programme is currently being broadcast with an English soundtrack only.

Q Why is there incorrect or no sound when in DTV mode?

A Press  to ensure the hard of hearing option has not been selected.

Q What can be done if the PIN number has been forgotten?

A Use the Master PIN code of 1276, then change to a number of your choice. Ensure that no-one else can use the Master PIN by removing the Owner's Manual.

Q Why are there vertical stripes on the screen when in PC mode?

A The **Sampling clock** may need adjustment. Select **PC Setting** from the **SET UP** menu, highlight **Sampling clock** and adjust until the lines clear.

Q Why are there horizontal stripes and/or blurred images on the screen when in PC mode?

A The **Clock phase** may need adjustment. Select **PC Setting** from the **SET UP** menu, highlight **Clock phase** and adjust until the picture clears.

Q Why when digital subtitles have been selected are they not showing on screen?

A Subtitles are not currently being transmitted by the broadcaster.


Q Why is there no digital text service?

A The **digital** programme being viewed is not broadcasting digital text. Try another **digital** programme.

Q Why are there problems with analogue text?

A Good performance of text depends on a good strong broadcast signal. This normally requires a roof or loft aerial. If the text is unreadable or garbled, check the aerial. Go to the **main index** page of the text service and look for the **User Guide**. This will explain the basic operation of text in some detail. If further information is needed on how to use text see the **text section**.

Q Why are there no analogue text sub-pages?

A There are none broadcast or they have not yet loaded. Press the  button to access. (See **text section**).

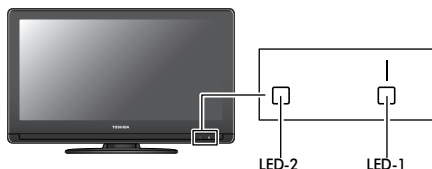
Q Why are the four coloured text numbers visible but no text?

A Text has been selected whilst viewing an external source i.e. DVD or VCR. No text will appear on screen or a box may appear stating no information is available. Select a broadcasting channel and press **TEXT** to access.

Q Why are the LEDs on the front of the television flashing?

A Check the table below.

LED indication		Condition	Solution
LED-2	LED-1		
OFF	Green (Solid)	The TV is operating properly.	—
OFF	Red (Solid)	Standby with Power-On	—
Green (Solid)	Red (Solid)	Active standby (Digital mode)	—
OFF	Green (Solid)	Sleep timer (Analogue mode)	—
OFF	RED Blinks 0.5 sec cycle	Power protect detection.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
OFF	Red Blinks 1 sec cycle	Abnormal operation of BUS line.	
OFF	2 times flashing with 2 sec interval	Abnormal operation (Initialization error).	

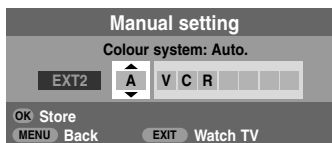


Q Why does the GREEN Active Standby LED sometimes take longer to go out?

A When put into standby the television's active standby will automatically search all available channels for downloads, provided **Auto upgrade** is **On**. The time it takes to do this may vary.

Q Why are the colours wrong when an NTSC source is played?

A Connect the source via a SCART lead and play. Select **Manual setting** from the **SET UP** menu.



1 Set the Colour to **Auto.** and exit.

2 Go to the **Picture settings** menu and adjust the tint.

Q Why don't the devices connected via HDMI operate properly?

A Make sure to use cables with the HDMI logo **HDMI** (see page 9).

Some early HDMI equipment may not work properly with the latest HDMI TV products, due to new standard adoption. Try **Lip Sync** setting to **Off**.

Q Why don't the REGZA-LINK devices work?

A When the connected REGZA-LINK device does not work correctly after you have changed settings of the device, turn off your television and unplug the power cord, then plug and turn on again. Unplug the HDMI cable of the REGZA-LINK device and lead again.

Q Why is the REGZA-LINK logo still showing when the equipment has been disconnected?

A If the REGZA-LINK is disconnected the logo will disappear after approximately one minute.

Notes

For your own records

Cleaning the screen and cabinet...

Turn off the power, clean the screen and cabinet with a soft, dry cloth. We recommend that you **do not** use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

Disposal...

The following information is only for EU-member states:

The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



For your own records

Information

Before connecting any external equipment, turn off all main power switches. If there is no switch remove the mains plug from the wall socket.

Signal information for Mini D-sub 15 pin connector

Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
1	R	6	Ground	11	NC
2	G	7	Ground	12	NC
3	B	8	Ground	13	H-sync
4	NC*	9	NC	14	V-sync
5	NC	10	Ground	15	NC

* NC = not connected

Acceptable video signals through PC terminal

Format	Resolution	V. Frequency	H. Frequency	Pixel Clock Frequency
VGA	640 × 480	59.940Hz	31.469kHz	25.175MHz
		72.809Hz	37.861kHz	31.500MHz
		75.000Hz	37.500kHz	31.500MHz
SVGA	800 × 600	60.317Hz	37.879kHz	40.000MHz
		72.188Hz	48.077kHz	50.000MHz
		75.000Hz	46.875kHz	49.500MHz
XGA	1024 × 768	60.004Hz	48.363kHz	65.000MHz
		70.069Hz	56.476kHz	75.000MHz
		75.029Hz	60.023kHz	78.750MHz
WXGA	1280 × 768	59.995Hz	47.396kHz	68.250MHz
		59.870Hz	47.776kHz	79.500MHz
		74.893Hz	60.289kHz	102.250MHz
	1360 × 768	60.015Hz	47.712kHz	85.500MHz
SXGA	1280 × 1024	60.020Hz	63.981kHz	108.000MHz
		75.025Hz	79.976kHz	135.000MHz

Acceptable video or PC signals through HDMI terminals

Format	Resolution	V. Frequency	H. Frequency	Pixel Clock Frequency
480i	720 × 480i	59.940/60.000Hz	15.734/15.750kHz	27.000/27.027MHz
576i	720 × 576i	50.000Hz	15.625kHz	27.000MHz
480p	720 × 480p	59.940/60.000Hz	31.469/31.500kHz	27.000/27.027MHz
576p	720 × 576p	50.000Hz	31.250kHz	27.000MHz
1080i	1920 × 1080i	59.940/60.000Hz	33.716/33.750kHz	74.176/74.250MHz
1080i	1920 × 1080i	50.000Hz	28.125kHz	74.250MHz
720p	1280 × 720p	59.940/60.000Hz	44.955/45.000kHz	74.176/74.250MHz
720p	1280 × 720p	50.000Hz	37.500kHz	74.250MHz
1080p	1920 × 1080p	59.940/60.000Hz	67.500kHz	148.500MHz
1080p	1920 × 1080p	50.000Hz	56.250kHz	148.500MHz
1080p	1920 × 1080p	24.000Hz	27.000kHz	74.250MHz
VGA	640 × 480	59.940Hz	31.469kHz	25.175MHz
		72.809Hz	37.861kHz	31.500MHz
		75.000Hz	37.500kHz	31.500MHz
SVGA	800 × 600	60.317Hz	37.879kHz	40.000MHz
		72.188Hz	48.077kHz	50.000MHz
		75.000Hz	46.875kHz	49.500MHz
XGA	1024 × 768	60.004Hz	48.363kHz	65.000MHz
		70.069Hz	56.476kHz	75.000MHz
		75.029Hz	60.023kHz	78.750MHz
WXGA	1280 × 768	59.995Hz	47.396kHz	68.250MHz
		59.870Hz	47.776kHz	79.500MHz
		74.893Hz	60.289kHz	102.250MHz
	1360 × 768	60.015Hz	47.712kHz	85.500MHz
SXGA	1280 × 1024	60.020Hz	63.981kHz	108.000MHz
		75.025Hz	79.976kHz	135.000MHz

Specifications and accessories

DVB-T Broadcast systems/channels		Broadcast systems/channels	
UK	UHF 21-68	PAL-I	UHF UK21-UK69
France	VHF 05-10 (VHF 01-05) UHF 21-69	PAL-B/G	UHF E21-E69 VHF E2-E12, S1-S41
Germany	VHF 05-12 UHF 21-69	SECAM-L	UHF F21-F69 VHF F1-F10, B-Q
Austria	VHF 05-12 UHF 21-69	SECAM-D/K	UHF R21-R69 VHF R1-R12
Switzerland	VHF 05-12 UHF 21-69		
Italy	VHF 05-12 (D,E,F,G,H,H1,H2) UHF 21-69		
Spain	UHF 21-69		
Netherlands	VHF 05-12 UHF 21-69		
Sweden	VHF 05-12 UHF 21-69		
Finland	VHF 05-12 UHF 21-69		
Greece	VHF 05-12 UHF 21-69		

Video Input PAL, SECAM, NTSC 3.58/4.43

External connections

EXT1	Input	21-pin SCART	RGB, A/V
EXT2	Input	21-pin SCART	A/V, S-video
EXT3	Input	Phono jacks Phono jacks	Y, P _B /C _B , P _R /C _R Audio L + R
EXT3	Input (Side)	Phono jack Phono jacks	Video, S-video Audio L + R

HDMI 1/2	Input	HDMI™ (Audio LIP SYNC supported)
HDMI3	Input (Side)	HDMI™ (Audio LIP SYNC supported)
PC	Input	Mini D-sub 15-pin Analog RGB signal
PC/HDMI1 Audio		3.5mm mini jack Audio
Digital Audio Output (S/PDIF)	Optical	
Output to Active Super Woofer	Phono jack	
Fixed Audio Output	Phono jacks	Audio L + R

Stereo Nicam
2 carrier system

Visible Screen Size (approx.)	Model	32	80cm
		37	94cm
		42	107cm

Display 16:9

Sound output Main 10W + 10W
(at 10% distortion)

Power consumption as specified in EN61017-1 : 1997	Model	32	141W
		37	173W
		42	207W

Standby (approx.)	Model	32	0.7W
		37	0.7W
		42	0.7W

Dimensions (approx.)	Model	32	56cm (H) 79cm (W) 25cm (D)
		37	63cm (H) 90cm (W) 25cm (D)
		42	69cm (H) 101cm (W) 26cm (D)
			(Height dimension includes foot stand)

Weight (approx.)	Model	32	16.6kg
		37	20.6kg
		42	26.7kg

Headphone socket 3.5mm stereo

Accessories Remote control
2 batteries
(AAA, IEC R03 1.5V)
Clip
Cleaning cloth (to clean the cabinet and control panel)

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Surrey, GU15 3DT, UK

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used with
Toshiba Televisions

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The TOSHIBA Digital Television uses software components that are distributed as freeware under a third-party end-user license agreement or copyright notice (hereinafter referred to as a "EULA"). Some EULAs require that the source code of the applicable component be disclosed as the condition for distributing the software component in executable format.

You can check the software components subject to such EULA requirements on the following Home Page:

URL: <http://tesc.toshiba.co.uk/Web/Website.nsf/ContentFrameSet?OpenFrameset>

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Pre-Installed Software	EULA
Linux Kernel Busybox	Exhibit A
uClibc	Exhibit B
ZBOOT	Exhibit C

Exhibit A

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That's all there is to it!

Exhibit C

**/* zlib.h--interface of the 'zlib' general purpose compression library
version 1.2.3, July 18th, 2005**

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